

3.—*Descriptions of Four New Species of South African Hemerobiidæ*  
(Order Neuroptera).—By L. PÉRINGUEY, D.Sc., F.E.S., *Director.*

### SUB-FAMILY MYRMELEONIDES.

GEN. PALPARES, Ramb.

PALPARES ÆMULUS, n. sp.

Text-fig. 1.

♂ ♀. Antennæ black, slightly shorter than the thorax. Head bright yellow with a black central macule on the vertex; a thick bunch of black hairs at the base of the antennæ; face without black patch; palpi fuscous in the anterior part; thorax one-third longer than broad, clothed all over with long flavescent greyish hairs, yellow with three broad parallel black bands on the upper side; under side black; wings dilated at about or a little beyond the middle, but slightly sharper at tip in the ♂, with the hind, sub-apical margin only very slightly sinuate, hyaline but with a flavous tinge, and the nervures and nervules yellow where not splashed with fuscous black, pterostigma yellow, costal margin and also sub-costal with very regular, sub-quadrangle fuscous spots; at about the median part runs another row of similar tessellation, which, beginning at the base, does not, however, reach beyond two-thirds of the length of the wing; the lower half of the wing is sprinkled with numerous, somewhat irregular fuscous dots, more seriated along the hind margin from the base to the apex where there is also a short horizontal band consisting of four or five agglomerated macules: in the hind-wings is a regular series of spots in the costal margin only, and an agglomeration of five or six such macules after the pterostigma, three large fuscous patches on the disk, a sub-quadrangle one at about the middle of the disk, an irregular, horizontal one between the middle and the apex surmounted by a smaller, sub-oblong above



FIG. 1. PALPARES ÆMULUS.

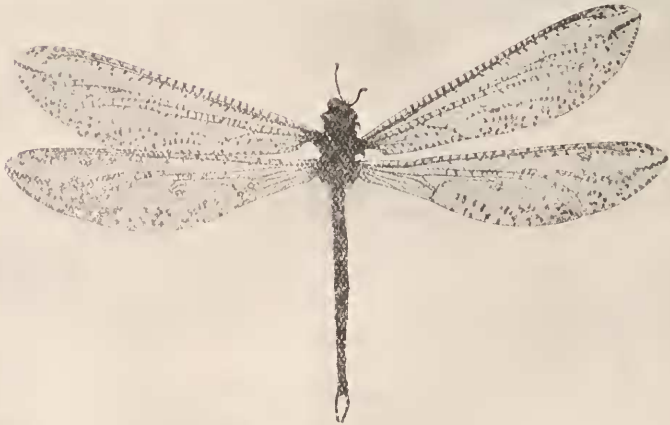


FIG. 2.—PALPARES SPARSUS, McL.

it and abutting on the sub-costal; along the hind margin there runs a regular, well-defined row of macules, and there is a juxta-apical, short, fuscous band, similar to that of the fore-wings; the body is deeply infusate, but there is a more or less distinct, sub-flavescent, dorsal median band reaching from the base to a third of the length in the ♂, but entire in the ♀.

Length of body 42-43 mm.; clasps 6 mm.; of fore-wings expanded, ♂ 104 mm., ♀ 115 mm.; hind-wings, ♂ 106 mm., ♀ 116 mm.

*Hab.* Natal (Maritzburg), L. Péringuey; Zululand, A. W. Jones.

This species is very closely allied to *P. sparsus*, ♂, MacLachlan, who has, however, connected with the male of this species the female of *P. æmulus*. My examples of *P. sparsus*, ♂ and ♀, are from the same locality as the ♂ described by the above-mentioned author, and agree with an example named by him in the British Museum.

PALPARES SOBRINUS, n. sp.

Text-fig. 3.

♀. Closely allied to *P. æmulus*; the colouration of the body is the same, except that the half of the face is deeply infusate; that



FIG. 3.—PALPARESSOBRINUS.

of the wings is of the same pattern, that is to say, they are sprinkled with small black spots, but in the hind-wing there are no large discoidal reticulated spots. In the fore-wing the sub-costal and radial nervures are not conspicuously yellow as in *P. sparsus*, ♂ and ♀; the macules are evenly spread and of even size, except

along the radial nervure, where they are vertical and longer than the others along the median part as far as or near to the pterostigma; in the hind-wings, below and alongside this radial nervure, there is, disposed in the same position as in the fore-wings, a series of small transverse macules a little wider than the others, and the outer of which, set not far from the pterostigma, is semi-arcuate; the other spots, which are somewhat closely set, do not form any distinct patch or band, not even at apex, and they are slightly larger than those on the fore-wings.

Length of body 39 mm.; of fore-wings expanded 100 mm.; of hind-wings 93 mm.

The antennæ are missing in the only example (♀) represented in our Collection.

*Hab.* Cape Colony (Dunbrody), Rev. J. O'Neil.

This species is more than a local race of *P. sparsus*, but it belongs to the same type, although more broadly differentiated from it than, for instance, *Palpares caffer* from *P. speciosus*.

So far as now known, *P. sobrinus* inhabits the coastal districts of the Eastern Province of the Cape Colony; *P. æmulus* occurs in Natal and Zululand, and is replaced in Southern Rhodesia and along the Zambesi River by *P. sparsus*.

#### PALPARES ONEILI, sp. n.

##### Text-fig. 4.

♀. Very light buff with the under side of the antennæ slightly flavescent; antennæ shorter than the thorax; labrum slightly flavescent, head concolorous, vertex very highly raised in the anterior part, sloping thence to the base; palps concolorous; apex of mandibles black; prothorax twice as long as broad, very densely hairy, lanuginose laterally and posteriorly, the lanuginose hairs being white; the long hairs on the pro- and mesonotum are black; in the centre of the dorsal part runs a black line, very narrow on the pronotum but wider on the mesonotum and narrower on the metanotum; on each side is a broad band divided into three on the mesonotum; the abdomen is blackish brown and concolorous, but probably lighter in life; legs flavescent, femora and tibiæ villose and with black bristles, tarsi sub-flavescent; spurs curving at apex, as long as the first and half of the second taken together; wings long, narrow, sharply acuminate at apex, hind border of the fore-wing broadly emarginate from the base to two-fifths of the length where the end of the emargination is lobate and rounded; in the posterior

wings, the emargination although very conspicuous is not lobate at the end; both are hyaline with fuscous markings, the sub-costal and radial nervures are flavescent, and the pterostigma is very indistinct; in the fore-wings the costal interval is sprinkled with black and white seriate patches along the margin from about half the length to the apex, and the hind margin is tessellated in the same fashion from the apex to the post-median lobe, but the macules are large and very distinct; in the centre of the disk there extends a narrow black band on both sides of the cubital vein from the base to past the median part, and parallel to this narrow band, but situated above it,



FIG. 4.—PALPARES ONEILLI.

is another, which begins at about the middle and reaches the apex; and above the terminal part of the emargination of the posterior margin there is a short line; the hind-wings have each three transverse, sinuate, fuscous-brown patches connected above the hind margin by a broad band, sending seriate transverse rami, reaching the margin itself; the third or post-median patch is almost connected with the costal vein, being vaguely interrupted, however, below the radial area, and the upper margin from the pterostigma to the apex is finely tessellated as in the fore-wing.

Easily recognised from any other South African species of *Palpares* by the peculiar emargination of the hind border of the wings, but I do not think that this character is sufficiently important to justify the creation of a new genus.

Length of body (♀) 47 mm. ; of fore-wings expanded 138 mm. ; of hind-wings 128 mm.

*Hab.* Cape Colony (Oudtshoorn), Rev. J. O'Neil.

## SUB-FAMILY NEMOPTERIDES.

### GEN. NEMOPTERA, Latr.

#### NEMOPTERA (ERETMOPTERA) KARROOA, n. sp.

♀. Flavous, variegated with light buff on the neck and thorax ; abdomen buff but with a light flavous median band on the dorsal part ; ventral part pinkish, and having a lateral narrow yellow band. Antennæ equal in length to two-thirds of the wing, yellow, but slightly infusate in the anterior third ; part of the head yellow, only

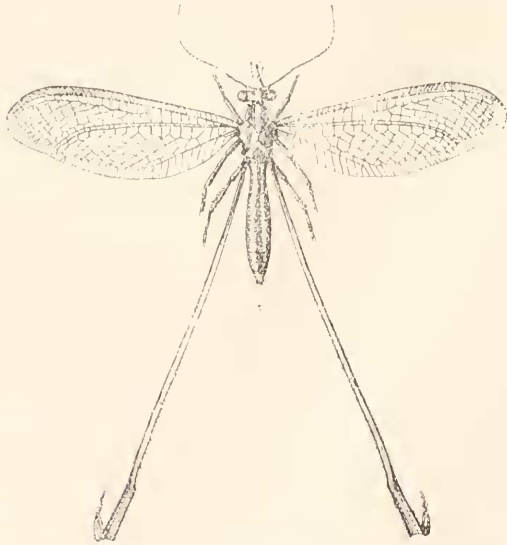


FIG. 5.—NEMOPTERA KARROOA.

the apex of the epistome and palps slightly infusate ; vertex and neck with three light buff bands ; neck distinct, vertex quadrituberculate ; prothorax twice as long as broad, pronotum narrower at apex than the vertex of the head, plainly elongate and having a lateral and anterior row of bristles, mesonotum nearly as broad as

long, sutures deep, interspaces slightly convex, the median, somewhat broad buff band is hardly visible past the middle, and the lateral ones are sub-dorsal; these bands are no longer distinct on the metanotum; the under side is concolorous, flavous like the legs, which have the ultimate tarsal joints slightly infuscate; wings hyaline with a very distinct flavous tinge; reticulation also flavescent, especially the sub-costal and radial veins which are conspicuously yellow, very bristly, and reaches the pterostigma, which is distinct; the wings are two and a half times as long as broad, not acuminate, but not rounded either at apex, with the posterior margin plainly sinuate at a short distance from the apex; hind-wings very long, very slender, nearly twice as long as the fore-wings, but curving strongly downwards at about two-thirds of the length, where each broadens, becomes plainly quadri-costate, and tapers suddenly near the tip, the enlarged part is more bristly than the anterior, and the constricted part is clothed with a long, black villo-sity; the whole wing with the exception of the constricted apical part is flavescent.

Length 15 mm.; expansion of fore-wings 53 mm.; length of hind-wing from base to curve 41 mm.; with the curve included 51 mm.

This species cannot be mistaken for any other South African one. It is probable that in the ♂ the fore-wings are a little more acuminate.

*Hab.* Cape Colony (Laingsburg), R. M. Lightfoot.